

The Vision for Space Exploration and the Future for Space Astronomy Missions

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NASA's Vision for Space Exploration is only six months old, with a vast number of elements to be understood and agreed upon, but some aspects of its effect on space astronomy may be discerned. The Office of Space Science contributed to the preparation of the Vision over the past autumn, which explains the relative prominence of space astronomy in a document that has attracted attention mainly to human missions to the Moon and Mars. The search for life is the dominant science theme within the Vision. Thus, such science programs as planet detection and study, the birth of stars and planetary systems, and the composition and structure of protostellar and protoplanetary systems are most consistent with the Vision. In the near term, a priority goal of the Office of Space Science, among other things, will be to invest in key technologies likely to be necessary to enable plausible future missions in these areas, including large, lightweight optics and precision structures, thermal control systems, sensors, and deployment schemes. Careful consideration will be given to the role of astronauts and coordination with the new Office of Exploration systems.